Category #3:

The Guidelines should require the use of non-toxic (bio-based) cleaning products.

(OGS prefers to use the terms "natural" or "naturally occurring" instead of bio-based. There are several different generally accepted definitions in the cleaning community for "bio-based" products and the incorporation of the word could lead to misinterpretation of what the product actually contains. For example, the Environmental Choice line of products that we are using originates in Canada and their use of the word "bio-based" includes enzymes whereas the U.S. version and the environmental groups mean more organic (which is also vague). So to avoid confusion to the readers and schools we are going to be consistent with our terminology of Green Seal and Environmental Choice to describe the cleaning products).

State Response:

The chemical or toxicological properties of chemicals and their mixtures are not necessarily determined by whether they come from "natural" (i.e. plant) sources or other sources such as petroleum. Furthermore, many of the components of a cleaning product (i.e. surfactants, solvents, fragrances) can come from either a biological (usually plants) or petroleum source. Manufacturers can purchase product ingredients from either source, and may choose one over the other based on factors such as price and availability. Thus, manufacturers might alternate between natural or naturally occurring and petroleum-based sources for product constituents, making it difficult to classify whether products are natural or naturally occurring or petroleum-derived. As an example of non-toxic properties of natural or naturally occurring products, note two types of self-defined naturally derived cleaning products in the market, citrus-based (from orange or lemon peels) and soy-based. The citrus-based products contain terpenes (e.g. d-limonene) that, on contact with air, are oxidized to form a sensitizing chemical that can affect human health. Soy products can contain endocrine disruptors (e.g. phytoestrogens), but they are not currently tested for the presence of these chemicals or this property.

Most of the Green Seal criteria are based on toxicological properties, i.e. the ability of products or their constituents to cause health effects. A consensus scientific process is used to determine whether the products or their constituents being considered have the ability to adversely affect health. There is no evidence that naturally derived products are less likely to affect the health of building occupants than other approved products.

OGS is unaware of any independent group that has explained how one would define and certify that a cleaning product is natural or naturally occurring. The U.S. Department of Agriculture (USDA) and the U.S. EPA are working on defining naturally derived products for a number of product classes, but have not addressed cleaning products yet. The USDA is establishing guidelines for designating items made from naturally derived products that will be afforded Federal procurement preference, as required under section 9002 of the Farm Security and Rural Investment Act (FSRIA) of 2002. The advantages of this program rely on the USDA surveying the marketplace to determine item designation for inclusion on a preferred naturally derived list. The final rule directs Federal agencies to request a quantitative analysis comparison verifying the life cycle costs, environmental and health benefits, performance testing, and percentage of naturally based components. When general purpose cleaning items are posted on the USDA's website, OGS will consider identifying the cleaning products that are on the sample list that have also been certified by USDA and posting that information on the list as products containing naturally occurring components per USDA's definition.

In order for an item to be designated for inclusion on the preferred naturally derived list, USDA will take into account product availability and technological and economic feasibility, including life cycle costs. USDA will consider a number of factors, including, but not limited to, the cost competitiveness of an item,

whether performance of the products within an item meet Federal requirements, availability of products within an item, interest by manufacturers in the preferred procurement program, and potential Federal demand for the product. USDA is also required to provide information for Federal agencies use on availability, price, performance, and environmental and public health benefits.

Frequently Asked Public Comment:

- --I believe the response from the Soap and Detergent Association spokesman Brian Sansoni was lacking he's puzzled that people want potentially harmful chemicals removed from children's classrooms and even questions "what people are looking for ?" I think people, especially students and staff, are looking for all toxic chemicals to be removed from our schools! There are many environmentally safe and effective cleaners that are chem-free and made from all-natural ingredients that would be much more suitable for NY States schools please consider mandating a list of these acceptable cleaning agents! (Richard Peters, 7th Grade Teacher, Lynch Middle School, Amsterdam, NY)
- --EAU Technologies, Inc. (www.eau-x.com) is a company in the business of making and marketing non-toxic Electrolyzed Oxidated fluids created by our generators. These generators are being tested and used by companies like Murray's Chicken, Tyson Foods and Whole Foods Market. While there are quite a few companies out there starting to break through the noise barrier in this field, I believe that EAU has a head start on all of them. What differentiates EAU is that we have machines that can create as little as 19 gal/hr to 50k gal/hr. And with one machine we create two very distinct fluids. One is a very effective disinfectant. In studies comparing our Primacide A and Chlorox Bleach, Primacide A was 80 times more effective and yet you could drink it. At the levels we use it, it is completely non-toxic to humans or animals. On the other side at the same time an alkaline solution is made. This solution replaces the need for soaps, surfactants or phosphate based solution. We use this everyday in a new revolutionary carpet and surface cleaning technology (www.myzerorez.com). This is all done with one small machine. (Joe Stapley, Vice President Investor Relations, EAU Technologies, Inc.)
- --The OGS/Green Seal guidelines do not stipulate the use of natural or naturally derived ingredients, and allow for petroleum derived ingredients.

 (Deirdre Imus, Founder and President, The Deirdre Imus Environmental Center for Pediatric Oncology, Hackensack University Medical Center, The David Joseph Jurist Research Center For Tomorrows Children, Hackensack, NJ 07601)
- --With reference to products used daily for general cleaning purposes to which children and staff have the most frequent exposure, we advocate the recommendation (or at least, the delineation) of third party certified, bio-based products without added fragrance (Janet Foley, Director, Occupational Safety and Health, Civil Service Employees Association, CSEA)
- --Why not base efforts on Bio-Based products that are available and not dependant on Personal Exposure Levels (PEL) at all? We have used such a protocol for the past three years successfully. Our cleaning program is effective, fiscally prudent, and exceeds the standards being discussed. (David E. Kincaid, Great Neck School District)
- --(1) Although the recent legislation that has been passed to observe "green cleaning" is a step in the right direction, we feel that purchasing cleaning products for the schools in New York State should have the nontoxic ingredients which can be found in "bio-based products". School districts such as Great Neck, Long Island are maintaining clean schools while the students are not being placed at risk for chronic diseases such as asthma, and cancer. (2) National researchers, whom we have been working with, all highly suspect that toxic childhood exposures, at low doses, during the ages of 6-11 years old may place girls at risk of getting breast cancer in their adult years. This age period is a unique time period since breast cells

are proliferating at a fast pace and are sensitive to toxic exposures. (3) Since New York State especially has a high rate of breast cancer, we need to do all that we can to reduce the risk where we can. Certainly, since precedents have been set in several school districts which have shown that bio-based products are effective, yet safer for children, we need to make clear in this "green cleaning legislation that only biobased products be purchased."

(Laura Weinberg, President, Great Neck Breast Cancer Coalition)

- --I am strongly in favor of using Bio Based products and NOT using Green-Seal toxic products in our schools. Children need the most protection we can give them!!! (Jill P. Madenberg, Lake Success, NY)
- --(1) Include Manufacturers that have both Green Seal Certified Products and Certified Bio Based Content products (3rd party Certification as directed by the United States Department of Agriculture); (2) Include all authorized New York State Distributors for said Manufacturers that are registered with the State. (R.E. "Skip" Seal, Northeast Division Manager, Spartan Chemical Company, Inc.)